CLAIMS:

Having thus described our invention, what we claim as new and desire to secure by Letters Patent is:

1   1.   A method for testing server with mixed workloads, where multiple clients

2   serving as agents and controlling device are connected with a server under test via

3   a network, characterized in that: comprising steps of

4   the third party develops one or more workload case configure utilities

5   corresponding to one or more workload cases, each of said utilities implements a

6   workload case configure utility interface;

7   the third party develops one or more workload engines corresponding to

8   one or more workload case, each of said engines implements a workload interface;

9   said controlling device configures workload cases by calling corresponding

10   ones of said workload case configure utilities through said workload case

11   configure utility interface, and transfers the information collected during the

12   configure process to corresponding agents;

13   each of said agents controls corresponding workload engine through said

14   workload interface to generate workload requests by using the information

15   collected during the configure process, and sends said requests to the server;

16   said controlling device collects response information from all the agents,

17   and generates test results.

1   2.   The testing method according to claim 1, characterized in that, said

2   workload case configure utility interface includes function that let the framework

3   invoke the third partys workload configure utilities to define workload cases for

4   various test purpose.

1   3.   The testing method according to claim 1, characterized in that, said

2   workload interface includes function of workload setup, control and monitor.

1   4.   The testing method according to claim 1, characterized in that, said one or

2   more workload case configure utilities are located in said controlling device, said

3   one or more workload engines are located in one or more agents.

1   5.   The testing method according to claim 4, characterized in that, said

2   configure process is implemented by a controller located in said controlling

3   device, and said controller can communicate with said agents.

1   6.   The testing method according to claim 5, characterized in that, said

2   workload engines are controlled by agent adapters located in said agents and said

3   adapters communicate with said controlling device.

1   7.   The testing method according to claim 5, characterized in that, said

2   configure process further comprises steps:

3   selecting one workload type from an available workload list;

4   activating a corresponding workload case configure utility according to the

5   selected type;

6   said one or more workload case configure utility configure workload case

7   corresponding said workload type and transfer the configure information to said

8   controller;

9   said controller designates network addresses of one or more agents which

10   will generate workload requests corresponding to said workload case ,and the

11   client number simulated by each of said designated agents.

1   8.   The testing method according to claim 7, characterized in that, said

2   workload case configure utility collects information for generating workload

3   requests for said workload case.

1   9.   The testing method according to claim 1, characterized in that, said

2   information collected during configure process at least includes workload case and

3   its configure information, and the client number simulated by corresponding

4   agent(s).

1   10.   The testing method according to claim 6, characterized in that, each of

2   said agent adapters sends the transferred information to corresponding workload

3   engine; said workload engine sends the response information to said agent

4   adapter   dynamically.

1   11.   The testing method according to claim 1, characterized in that, further

2   comprising step of said controller controlling the start and the end of the test by

3   sending commands to said agents.

1 12.   A testing framework system for testing server with mixed workloads,

2 where multiple clients serving as agents and controlling device are connected with

3 a server under test via a network, characterized in that:

4   the controlling device comprising,

5   a controller for coordinating all the other components;

6   a workload case configure utility interface that enables third parties to

7 develop one or more workload case configure utilities that can be incorporated

8 into the framework system;

9   said workload case configure utilities allowing third parties to describe

10 specific test requirements,

11   each of said agents comprising,

12   an agent adapter that receives commands and information from said

13 controller and returns the server's response information to said controller;

14   a workload engine interface that enables one or more workload engines

15 developed by third parties to be incorporated to said framework system said

16 workload engine receives commands and information from said agent adapter to

17 generate workload requests, sends requests to the server and receives response

18 information from the server.

1 13.   The framework system according to claim 12, characterized in that, said

2 workload case configure utility interface includes function that let the framework

3 invoke the third party's workload configure utilities to define workload cases for

4 various test purpose.

1   14.   The framework system according to claim 12, characterized in that, said

2   workload interface includes function of workload setup, control and monitor.

1   15.   The framework system according to claim 12, characterized in that, said

2   controller configures workload cases by calling said workload case configure

3   utilities through said workload case configure utility interface, designates network

4   addresses of one or more agents which will generate workload requests for

5   individual configured workload cases and the client number simulated by each of

6   said designated agents, and then transfers the information collected during the

7   configure process to corresponding one or more agent adapters.

1   16.   The framework system according to claim 12, characterized in that, said

2   workload case configure utilities collect information for generating workload

3   requests for said workload cases respectively.

1   17.   The framework system according to claim 12, characterized in that, said

2   information collected during configure process at least includes workload case and

3   its configure information, and the client number simulated by corresponding

4   agent(s).

1   18.   The framework system according to claim 12, characterized in that, said

2   controller controls the start and the end of the test by sending commands to

3   agents.

1   19.   The framework system according to claim 12, characterized in that, said

2   controller receives the response information from said agent adapters dynamically.

1   20.   The framework system according to claim 12, characterized in that, said

2   controlling device further comprises,

3   a workload case repository that stores the workload cases defined by third

4   parties and the information collected during configure process.

1   21.   The framework system according to claim 20, characterized in that, said

2   controlling device further comprises,

3   a workload engine repository that stores the workload engines defined by

4   third parties.

1   22.   The framework system according to claim 12, characterized in that, each of

2   said agents has at least one workload engine.